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ABSTRACT

This paper elaborates on the Agency for International Development's (AID) new strategies for educational assistance to developing nations, with special reference to available, centrally funded technical assistance resources and the means for procuring them. Section one provides a brief introduction and lists the kinds of resources available and generally procedures for getting them. Section two outlines the agency's policies and programs on educational economics, problem analysis, and decision-making strategies for financing education. Section three describes AID programs and available resources for program development in nonformal education. Section four discusses AID programs for improving educational technology in developing nations. Procedures for using these resources are also included. Section five describes the programs and resources for improving higher education in developing countries. Finally, section six describes the efforts to coordinate these programs for greater effectiveness. (DE)

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SOME EMPHASES AND RESOURCES FOR THE A.I.D. EDUCATION SECTOR

APRIL, 1974

OFFICE OF EDUCATION AND HUMAN RESOURCES
BUREAU FOR TECHNICAL ASSISTANCE
WASHINGTON, D.C.

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TABLE OF CONTENTS

	Page
Introduction	1
Education Economics and Analysis	5
Non-Formal Education	9
Educational Technology	13
Higher Education for Development	21
Quality of Life: Some Thoughts on Coordination	25

INTRODUCTION

Missions have by now received the paper entitled "The AID Education Program Strategy" and program guidance (AIDTO CIRCULAR A-275), which present broad lines of approach to the Agency's new directions in educational assistance to less developed countries.

WHAT IS THE PURPOSE OF THIS PUBLICATION?

The aim of this paper is to spell out some detailed implications of these documents, with special reference to centrally funded technical assistance resources available and the means for procuring them. One envisaged use of this paper is in connection with selecting, planning, managing, and evaluating educational assistance activities. Another is in discussion with your country colleagues of new lines of actions to solve both old and newly-perceived problems.

We have assumed that information already received and read has raised a certain number of questions in your minds. We have, therefore, cast this paper in a form which tries to anticipate some of your questions and to give useful answers.

Our knowledge of your real questions is limited. Also, our knowledge of resources and their availability is changing in increasingly positive and practical ways. We would not like this paper regarded as a final word. It is, instead, another step toward our goal of giving effective assistance to the field, as Missions marshal resources to help less developed countries to solve the problems of development.

WHAT ARE SOME OF THE KINDS OF RESOURCES AVAILABLE?

While you are familiar with the resources available to you through your Regional Bureau, we believe it will be useful to you to know of another set of resources available on a global or interregional basis. These resources are of the following kinds with the following characteristics:

Publication: The AID Education Program Strategy. This is a global sector statement which can be useful most especially at the problem identification and also the action alternatives stages and in discussions at these junctures with country colleagues.

Publication: Directory of Services Provided by AID Bureau for Technical Assistance. Distributed in fall, 1973, this pamphlet lists Agency education resources on pages 8 through 11.

Grant Institutions: These are often referred to as "211(d) Institutions," or "211(d) Grantees." This nomenclature derives from the source of the funding authority, Section 211(d) of the Foreign Assistance Act. AID makes such grants to strengthen an institution's capabilities in a field to which it has already shown commitment, and which can contribute to solution of social/economic development problems. Bureaus and Missions can contract with the grantee institution(s) for specific operational or implementing work such as an operational project or a particular piece of research. Example of 211(d) grant institution: University of California at Berkeley, for education finance. See page 6.

GTS Project: This means General Technical Services Project, a category of AID activity funding. Many Mission activities are GTS funded. The Technical Assistance Bureau engages in GTS-funded activities which are either pilot projects or have worldwide applicability. Example: "Field Support - Non-Formal Education," on page 10.

Research: This is both a category of funding and a specific kind of activity designed to study a development problem carefully or to test rigorously a proposed solution. The product is usually a final report, but in many cases it may be useful during the research for your host country colleagues to learn about interim results or to observe experiments being carried on. Information on research design is available from the Technical Assistance Bureau through your Regional Bureau. In many cases, the need for research useful to many country programs may be identified through a problem initially surfaced in an individual country. At times, there is a further product in the form of benefits to the particular country or countries in which the research is carried on. Example: Research report entitled "Big Media, Little Media" by Dr. Wilbur Schramm. See page 15.

Experts and Consultants: These individuals or teams are located in AID/W offices or other Missions; in universities and other non-profit institutions; in government agencies and international agencies; and in private-sector organizations.

As AID and the Civil Service Commission use the words "expert" and "consultant," the distinction relates to the nature of the work, not to the kind or level of expertise. An "expert" produces a body of work, e.g., a survey or leadership of a seminar; a "consultant" provides advice, e.g., participating in discussion or critiquing a proposed plan. Both functions may be required of the same person; in this event we say he is an "expert/consultant."

Technicians: In AID parlance this does not refer to a level of expertise. It usually indicates a person whose function is of an implementing or operational nature. May be AID direct-hire or contract.

Basic Ordering Agreement: A Basic Ordering Agreement (BOA) is a legal agreement much like a contract, except that no budget is included and no work is carried out under the BOA alone. Its chief feature is a carefully written scope of work, the function of which is to describe in broad terms the kinds of expertise and/or services the outside organization, referred to as the "contractor," stands ready to provide to AID at such time as they are useful and funds are available.

When a Mission or AID/W office needs any services falling within the BOA scope of work, it can execute a Task Order under the BOA. This is done by preparing a PIO/T in the usual way, including the amount of funding, and specifying in Block 14., Instructions to Authorized Agent, that the work is to be done through a Task Order on the BOA with the contractor in question. The number of Task Orders which can be in effect at any one time is limited only by the number the contractor can reasonably undertake. In effect, it is the Task Order which is the contract; all monitoring, amending, evaluating, etc., are done by the office or Mission executing the Task Order. The advantage of this arrangement over the regular contract procedure is that the contractor has already shown interest and has been screened for competence, reliability, fiscal responsibility, overhead rate, etc., leaving only the description of the work to be done, number and kinds of personnel, and funding required. Example: present BOA with the Academy for Educational Development, covering work in project planning in educational technology. See page 17.

Informal Contacts as Resources: It is part of the function of AID/W to represent the Agency with other groups. These may be international agencies, other bilateral donors, U.N. Institutions in development work, voluntary associations, professional organizations, foundations, or private sector organizations. Through meetings and other contacts we exchange information on current activities, resources, trends and plans. To the extent that AID/W knows Missions' interests and problems, Regional Bureaus and the Technical Assistance Bureau can give and get the information which can be helpful.

Mission people can, of course, do the same. Examples of the kinds of contacts Missions can often make are: the UN Resident Representative; a UNESCO individual or team; the World Bank representative; World Health Organization representative; bilateral program individuals or groups, such as Canadian, German, Japanese, French, or Indian; voluntary organization groups or individuals. At the least, exchange of information can take place; in many instances, joint planning or collaboration is possible, even if it is only assurance of non-duplication or non-conflicting in-country activities.

HOW CAN MISSIONS TAP THESE RESOURCES?

As a general principle, a Mission should communicate with the Technical Assistance Bureau through its Regional Bureau. This is organizationally sound, as it keeps your Bureau technical office and country desk informed. In addition, your Bureau may have resource inputs to make, and it can be an effective liaison between you and the Technical Assistance Bureau. Only if your Bureau knows what the Mission is thinking or planning can it backstop

your efforts or serve as broker in working out arrangements for services.

When the Mission wants further information on contractor or grantee expertise, interest, or availability for a specific undertaking, it is useful to request that your Bureau backstop office check it out.

Similarly, if direct TAB help is desired, e.g., TDY visit of EHR staff member for participation in a seminar or evaluation, your Bureau should be informed of your need and asked to arrange the service with TAB.

Program Emphasis Field: EDUCATIONAL ECONOMICS AND ANALYSIS

WHAT IS THIS PROGRAM EMPHASIS FIELD (PEF) ALL ABOUT?

What is education economics and analysis?

Education economics and analysis is primarily concerned with two closely related aspects of education: (1) improving the decision-making capacity of host governments and donor agencies as it relates to the identification and solution of educational problems; and (2) the development of alternative strategies for financing education.

WHY IS THE AGENCY CONCERNED ABOUT IMPROVING EDUCATION SECTOR ANALYSIS?

It has become abundantly clear that many educational problems persist because of poor analysis and consequent poor decisions concerning the nature of these problems. This leads to poor choices among alternative courses of action (and their several consequences) for their solution. Shortages of resources (ours and theirs), time, etc., simply will not permit the development of projects, loans, programs, etc., which lack appropriate analytical underpinning sufficient to assure that the right program is being mounted at the right time, in the right place and at the right cost.

With unit costs rising beyond the fiscal capacity of most nations, more attention must be given to assisting countries to develop improved and alternative methods of financing education endeavors.

Equally important is the realization that the Agency cannot afford to mount programs and projects in all the developing nations of the world, even though they might all require them. Each effort, therefore, must have enough analytical underpinning to permit those concerned to generalize from the project or program. Understanding the reasons for failure are as important as understanding the reasons for success.

Is Analysis Limited to Overall Sector Studies?

No. It encompasses analysis within the education sector as well as analysis of the entire sector. Full-blown "sector analysis" may call for a wide range of measures resulting in a comprehensive appraisal, while "within-sector" analysis will mean studying and analyzing many kinds and sizes of activities, from quite modest efforts with little quantification to more complex endeavors.

Is Analysis Viewed as a Substitute for Sound Judgment?

Most assuredly not. They should be viewed as complementary components - both required if decision making is to improve. Analysis permits sound judgment.

Does Analysis Mean Reducing or Attempting to Reduce all Educational Problems to Some Mathematical Construct to be Run on a Computer?

No. Efforts to improve analysis, and through it decision making, should be viewed as a developing art. There is as yet no single, settled, analytical way to do sector analysis, project analysis, etc. The requirements of the situation should dictate how far analysis goes, what tools it employs and what measures it produces.

IS EDUCATION ECONOMICS CONCERNED SOLELY WITH FINDING NEW FUNDING SOURCES?

No, it relates to all aspects of the financing of education and the costs of programs undertaken. In addition to finding additional, or different, sources of funding, there is the question of wise use of whatever funds are available. Further, once the education needs have been identified through the best possible analysis, and once the funds have been obtained for the carefully selected educational programs, there are the questions of mounting these programs in the most cost-effective way and continuously assessing the educational outcomes in relation to their cost. Only in this way can a government or other sponsoring organization know where its education program is going, why it is going there, and finally whether its output is worth its cost.

In other words, having money is no guarantee that it will be wisely spent, and knowing how to spend money wisely is no guarantee of having the money to spend. We can say, therefore, that educational economics is a two-pronged emphasis: first, on obtaining the maximum justifiable amount of funding; and second, on being able to spend these funds in such a way that they yield the greatest possible educational result contributing to the country's social and economic development goals.

WHAT HAS BEEN DONE IN THE PEF TO DATE?

TA/EHR, in cooperation with Regional Bureaus, is building a base of support through deployment of contracts and grants to known centers and persons of excellence in the area of analysis, including education economics.

211(d) Grant Institution: The University of California, Berkeley. (sometimes referred to as "Berkeley")

Funded in March, 1973 the grant will enable Berkeley to develop new analytical methodologies in the areas of costs and financing; to test these methodologies in field sites established in collaboration with Missions, host governments and Regional Bureaus; and to disseminate the results of these pilot analytical field programs and workshops.

This Berkeley program can enter into contracts with Missions and Bureaus for work which is additional to its 211(d) grant activity. Dr. Guy Benveniste is the Director of the program.

GTS Project: "Educational Outputs Measurement." Contractor: Georgetown University.

This is a GTS Project under which Georgetown has contracted to investigate and test educational outcome methodologies. Haile Selassie I University in Ethiopia is collaborating under a sub-contract with Georgetown by providing a field site and part of the professional staff. The project will provide instruction, publications, conferences, etc. Dr. Selma Mushkin of Georgetown is the project officer.

GTS Project: "Inventory Classification of Activities in Educational Finance." Contractor: Harvard University

Completed in August, 1973, this project produced a number of studies and papers which were published as a book to assist those concerned with costs and finance of education, plus a substantial, separately printed bibliography of materials in the field. The book and bibliography have been distributed to developing country and AID personnel. Two international conferences were held to present the findings contained in the book and to elicit recommendations for further work from AID personnel and host government participants. Dr. Manuel Zymelman was the project officer.

A limited number of additional copies of the book and bibliography is still available from TA/EHR:

Zymelman, Manuel. Financing and Efficiency in Education, Reference for Administration and Policymaking. Boston: Nimrod Press, 1973. pp. 314.

Gould, Elaine S., Adele Neuringer and Manuel Zymelman. Selected and Annotated Bibliography on Financing Education. Cambridge, 1973. pp. 48.

Research: "Methods for Reducing Unit Costs of Education," Multinational Center for Educational Research. San Jose, Costa Rica

In June, 1973 the Center entered into a one-year contract to adapt and amplify earlier work in the development of guidelines and procedures for reduction in unit costs of education, with particular emphasis on Latin America. Dr. Oscar Serafini is Director of the Center.

The text of a handbook has been completed, and it will be published shortly. Distribution will be by TA/EHR.

WHAT RESOURCES ARE AVAILABLE FOR REGIONAL BUREAUS AND MISSIONS?

When the needs are specified, TA/EHR can act as a broker between the needs of Missions and their host governments on the one hand and the resource bases above (or others as they are needed). While some of the aforementioned activities are, or shortly will be, completed, individuals or teams from these network institutions can, with sufficient notice, be deployed to assist Missions or their hosts. EHR's continued development of an effective response capacity is, of course, contingent upon the specification by Missions and host governments of what they require, when, etc., in the area of analysis for education.

TA/EHR also can provide Regional Bureaus and Missions with a list of direct-hire personnel who have necessary analytical skills and are available either from Washington or from other Missions.

WHAT ARE THE FUTURE PROSPECTS FOR THIS PEF?

TAB is anxious to assure that its resource base continues to be developed and deployed to serve the interests and needs of Missions and their hosts. But the improvement of analysis, including economic and pedagogic elements, and through it the decision making capacity of host governments, is contingent upon a cocperative effort involving, first and foremost, AID staff in Missions with the cooperative assistance of Agency personnel from Washington. Also, contractors will be necessary. Money exists for their employment, but the effective selection of them and the utilization of what they produce is contingent upon the development of AID's own analytical capacity.

Each AID staff member, therefore, in each project, no matter how small, should view his efforts as being part of the overall analytical/decision-making process.

Under some of the grant arrangements (e.g., University of California at Berkeley) networks of capable institutions both domestic and foreign are being developed in order to assure that host governments not only participate in the production and distribution of knowledge and experience with respect to analysis for education, but also to provide sites for training, etc., which are more accessible to persons concerned with either learning to do analysis (technicians) or employ it (politicians).

In all likelihood the future will witness a linking of this PEF with other PEFs in education (e.g., technology, non-formal education.)

Program Emphasis Field: NON-FORMAL EDUCATION

WHAT IS NON-FORMAL EDUCATION ABOUT?

Two-thirds of the developing world's school-age population and most of the adult population will never have the opportunity to benefit from formal schooling. Developing countries have neither the financial nor the human resources to extend formal education to those not now served. Even were such extension desirable the kind of formal schooling now offered would simply not be useful to the rural people who are the vast majority of LDC populations.

The methods and materials used in non-formal or out-of-school learning often do not require the high recurrent expenditures of traditional schooling. It can be carried out by para-professionals, by minimally trained peers using programmed instruction, by voluntary agencies, youth groups, religious organizations. It may use low-cost technologies such as radio, programmed texts, picture stories, or simulation games. Since non-formal education can be more immediately problem oriented, it can be readily utilized to provide the knowledge and skills needed for improvement of life in rural areas.

In urban areas examples of non-formal education are found in apprenticeship or on-the-job training programs, work-related school programs, skills training through the military, or industrially supported programs.

Non-formal education is flexible, adaptable to local circumstances and changing needs, and to the convenience of the target group. It can be used for virtually any type of subject matter and learning objectives. It is free to try new and unconventional approaches. Programs can be designed to serve all people regardless of their age or educational background.

Non-formal education often requires an interdisciplinary approach and will draw increasingly on the experience and expertise in such areas as nutrition, health, agriculture, family planning, and industrial skill training as the non-formal mode of education is increasingly applied to meet human resource development needs.

WHAT HAS TA/EHR DONE IN THE NON-FORMAL EDUCATION AREA?

To date, TA/EHR has utilized consultants and contracted institutional resources to provide the beginnings of a systematic base of knowledge about non-formal education. In cooperation with the regional bureaus, we have provided information and publications on non-formal education to the field. We have cooperated with organizations such as SEADAG, ICED, IBRD, ICET, and others in holding conferences, seminars, and conducting research. Special case studies have been made in a number of developing countries. Technical teams or individual consultants have been made available to requesting Missions to provide assistance in connection with sector assessments, planning and evaluations.

GTS Project: "Non-Formal Education." Contractor: Michigan State University.

Begun in mid-1970 and scheduled for completion in June, 1974, this was the first non-formal education activity undertaken by TA/EHR. Its purposes are to provide to LDC officials and institutions and to the international donor community authoritative information on various aspects of non-formal education; and to create a U.S. resource base with response capability for AID/LDC service requests. A further product is ten papers now being published; the subjects are historical perspectives, categories and strategies, country comparisons, learning effectiveness, economic factors, case study survey, model feasibility, administrative alternatives, participant training, and a general summary paper. Dr. Cole Brembeck is the contractor's project officer.

WHAT RESOURCES CAN TA/EHR MAKE AVAILABLE TO REGIONAL BUREAUS AND MISSIONS?

In addition to professional materials and special reports, TA/EHR offers Regional Bureaus and Missions a variety of technical services through consultants, contractor personnel or TA/EHR staff:

- support for holding regional or national seminars and workshops to create and develop an awareness of the role non-formal education can play in helping attack host-country priorities in human resource development;

- assistance to host countries conducting education sector reviews or surveys of non-formal education programs;

- aid in planning for, designing and evaluating non-formal programs;

- conducting exploratory studies on promising approaches to non-formal education; and

- providing consultants on specific non-formal programs, such as those in adult education, rural education, or job-related and youth service programs.

Short-term services are available without use of Mission funding. Longer term assignments will require Mission funding. TA/EHR and MSU are ready to assist in recruitment. In most cases Missions should make requests for services at least a month prior to the time of actual need.

GTS Project: "Field Support: Non-Formal Education." Contractor: Michigan State University.

Begun in FY 1973, this project provides assistance to AID in project feasibility, design and evaluation work; is continuing expansion of the knowledge base and of an international network; is holding or participating in interregional, regional and country seminars; and will produce a

handbook for LDCs and donors that provides guidance in developing non-formal education programs. Dr. Cole Brembeck is the contractor's project officer.

Under contract with AID, Michigan State University is sponsoring the first International Conference on Non-Formal Education in April 1974, which will bring together LDC and donor country practitioners, policymakers and researchers.

WHAT IS THE STATUS OF AID-SUPPORTED NON-FORMAL EDUCATION PROJECTS?

Non-formal education projects supported by AID can be found in a number of countries. Some especially interesting ones are in Ethiopia, Thailand, Ecuador, Nigeria and East Asia, plus several that are worldwide in scope.

ETHIOPIA A sector review has identified non-formal education as an important component along with formal education in the total national learning system. The Ministry of Education is conducting pilot trials of certain non-formal aspects of the proposed system. Village learning centers under the auspices of local groups will be used to extend education of a practical nature to rural areas.

THAILAND Mobile Trade training units extend practical skills training into rural areas. Short-term instruction is provided in such areas as basic electricity, bicycle repair, food preparation, cosmetology, dressmaking, typewriter and sewing machine repair, etc. As of FY 73 some 45 Units were in operation in 60 locations with approximately 45,000 students in training. A program of a similar nature is now being considered by USAID/Laos.

ECUADOR The Ministry of Education's Division of Adult Education, and the University of Massachusetts under contract to the AID Mission are experimenting with simulation games, skill games and other techniques to promote development of the skills, knowledge, and behavior useful to people in the rural areas. Content of the program includes numeracy, health, nutrition, agriculture, literacy and factors like a sense of self-worth, self-confidence, and the value of community cooperation.

SEAMEO Eight countries in the Southeast Asia region are undertaking a study to identify models, promising approaches and existing programs of a non-formal type which can be further developed or expanded to provide education outside the formal systems. Individual country assessments are underway.

INNOTECH The Center for Educational Innovation and Technology is sponsoring experimentation with a delivery system for mass primary education in small rural communities in Southeast Asia. The project attempts to utilize human resources at any age level in the villages that can generate learning.

NIGERIA Opportunities Industrialization Centers similar to those operating in the United States have been set up in Nigeria

and several other African countries. The Centers are community based, are conducted outside the formal school system and include recruitment, orientation, testing-assessment, basic and remedial education, skill training, counseling, job placement and follow-up.

WORLDWIDE In addition to the foregoing projects, new projects are being proposed by other countries in the three regions. Countries which are actively considering projects in the non-formal area include Nepal, Indonesia, Guatemala, El Salvador, Bangladesh, and Jamaica.

WHAT ARE THE FUTURE PROSPECTS FOR THIS PEF?

In all likelihood the future development of non-formal education will see an increasingly inter-disciplinary approach with nutrition, hygiene, agriculture, family-planning, as well as providing basic skills training. The idea of "recurrent education" or "life-long education" in a non-formal context will begin to take root. Centers for non-formal education will develop and be the focal points for linkages in a world-wide network.

Program Emphasis Field: EDUCATIONAL TECHNOLOGY

WHAT IS THIS PROGRAM EMPHASIS ALL ABOUT?

First, let us give our working definition. Educational technology includes the systematic methodologies used to design and deliver learning experiences. These methodologies are based on research in human learning and communication and are employed with a combination of human and material resources to bring about more effective instruction.

What is the purpose of TA/EHR's educational technology program?

The program is designed to provide: planning assistance and information to the field, research and development, development of institutional resource centers through 211(d) multi-year grants, evaluations of significant LDC educational technology programs, and policy and program guidance.

But isn't it really a "hardware" approach to education?

No. As our definition indicates, educational technology is much more than just hardware such as TV and computers. The purposeful organization of all the components involved in enabling someone to learn belongs in the area of educational technology.

Because large numbers of people normally have to be reached, media can play an important, but certainly not the only part. The hardware is always simply the delivery mode.

Most important is the conscious use of educational technology as a catalyst for change in the objectives, content, and organization of education, as in El Salvador and Korea, where the introduction of new technology is associated with basic changes in curricula, classroom teacher training, school organization, and instructional method. One might say more broadly that this is a "systems approach" to educational technology.

Is educational technology applicable only to the formal school system?

Definitely not. Probably the greatest promise of educational technology is in its skillful use to create, at a cost developing countries can afford, significant learning opportunities for the large numbers of children and adults whom the formal school system has not been able to reach.

How would educational technology help to reach these people?

Educational technology can be used not only to extend the outreach of the formal school system to a larger number of the population but also

as an integral component of non-formal education programs acting independently of the formal schools. It can be an effective support of programs designed to deliver local community services in agriculture, health and nutrition as well.

Why is AID emphasizing these newer delivery modes?

AID and developing countries are faced with the realization that we can no longer hope to solve educational problems exclusively by adding more of the same kind of schools and more of the same teaching, doing the same things for/with/to students. Also, money and skilled educational work force are in short supply.

The newer delivery modes and other innovative technologies show real promise of being able to deliver relevant, useful information and meet the learning needs of larger numbers of people. Their abilities include the relative speed with which learning systems can be developed to reach the mass of people with important information and learning, the ability to reach where local expertise (agricultural, teaching, administrative) does not exist in sufficient amount, and the relative equity with which they can provide a way for even the poorest and the illiterate to have access to information and/or education. Furthermore, the newer technologies may be used in ways that are more effective and cheaper than a linear expansion of the present systems would be. For this reason many developing countries are actively exploring the possibilities of using the more innovative technologies.

Within the formal school system does this mean that educational technology will somehow take the place of teachers in the developing countries?

People who think, or fear, this are usually thinking of the hardware elements or newer delivery modes. But the most serious educational problems in developing countries exist outside of the urban areas, in locations where poorly qualified teachers or no teachers at all presently exist. The question is not one of replacement. It is, rather, one of providing opportunity to learn where none now is available and of increasing the instructional effectiveness of the teachers who may be already there.

WHAT HAS BEEN DONE TO DATE IN THE PEF?

What knowledge base has been developed in TA/EHR on the use of educational technology to meet LDC needs?

EHR staff has been helping Regional Bureaus and Missions to plan many pioneering efforts in using educational technology for educational reform,

including those in El Salvador, Guatemala, Ivory Coast, Korea, and India, and has evaluated key projects in such places as Niger and American Samoa. By now major EHR contractors have acquired very broad experience through evaluating or planning other large educational technology programs in Mexico, Brazil, Thailand, Iran, Zaire, and several additional Latin American and African countries.

Is this knowledge available for AID and LDC planners?

Some of it is available in useful form, but not enough. It is a high priority of current work to make more of it rapidly available. Already available are an early handbook on large-system experience with educational technology, a film on the El Salvador and Niger classroom TV systems, and a number of technical reports. These will be supplemented in coming months by a series of summaries of just-completed research, targeted state-of-the-art publications, and the NEWSLETTER. See GTS Project, page 18.

What evaluations of costs and effects do we have?

Two major evaluation contracts have just been completed. Together, they provide reasonably precise cost and educational effect data on a number of the major LDC projects.

Research: "Television and its Lower-Cost Alternatives." Contractor: Institute for Communication Research, Leland Stanford University.

A series of summary reports of the research findings is now being produced, covering the Mexican use of secondary "telesecundaria" school TV and primary school radio "radio primaria" to extend the educational system.

Already published under this contract is a summary of the state-of-the-art, "Big Media, Little Media," by Dr. Wilbur Schramm.

GTS Project: "Evaluation of the El Salvador Educational Reform Project." Contractor: Academy for Educational Development.

The contract is now complete, and project reports and summaries are being printed. They deal with costs, educational effects, and administrative factors in the Salvadorean ITV-based educational reform. This evaluation is one of the most comprehensive ever undertaken of an educational innovation.

GTS Project: "Analytical Services." Contractor: Academy for Educational Development.

Completed in December 1973, the project has concentrated on studies of

three AID education policy areas: 1) research and development priorities; 2) communication satellite systems and alternatives; and 3) development of communication strategies for application to development activities in agriculture, nutrition, and population. The project utilized a variety of experts and sub-contracts, including George Washington University and Massachusetts Institute of Technology. A series of summaries and study reports will soon be available.

What else are we involved in?

We have funded studies of development options presented by the new communications technologies; have established the Information Center on Educational Technology; have attempted some coordination with the work of UNESCO and with other bilateral donors in this area; and have helped to represent the AID and LDC point of view in U.S. Government policy forums, an array of inter-agency and Congressional task forces and, most recently, in the international deliberations on restrictions in the use of direct broadcast satellites.

WHAT RESOURCES CAN EHR MAKE AVAILABLE TO REGIONAL BUREAUS AND MISSIONS?

- We can help mount project planning advisory teams, a few through central funding and others with Mission funding

- We can offer professional review of country or Mission proposals or program ideas. (central funding)

- We have a capacity to help mount conferences or workshops (primarily with Mission funding)

- We can undertake talent recruitment (Mission funding)

- We can provide information on LDC applications of educational technology. This includes a publication series, a NEWSLETTER and specific responses to individual requests through an Information Center (see below under "Where can Missions write, or visit, for more information of the kind needed in the 'thinking'about' stage?" (central funding)

How can we help plan or evaluate LDC projects in educational technology?

Below we describe some of the resources. We have encouraged a growth in such expertise, principally in U.S. universities. We frankly do not know whether they can fully meet the impending demand for such services, but we are working to assure that the demand can be met.

211(d) Grant Institution: Center for Educational Technology (CET), Florida State University

Funded in May, 1971, this center is active in research and development, training, and program development. With approximately 30 professional staff members, plus access to faculty in other related departments, CET's main strength is in systems analysis from the standpoint of educational technology and educational planning especially in instructional systems design approached from a behavioral point of view. In the past two years Korea has been a major focus, with CET instrumental in the planning for a comprehensive, technology-based educational reform. CET has had much experience in Latin America, and has recently planned an R&D program dealing with educational radio.

The Center can enter into contracts with Missions and Bureaus for work which is not part of their 211(d) activity. Dr. Robert Morgan is Director of the Center.

211(d) Grant Institution: Institute for Communication Research, Stanford University

Funded in September, 1973, this grant has three main foci: the use of communication and instructional technologies in extending learning opportunities beyond the formal classroom; the use of the smaller, less expensive media; and continued evaluation of large-scale reforms based on classroom television. At present, the center's strength is in evaluation and analysis. Grant activities include a master's degree training program, a series of regional workshops, and a variety of research activities.

The Institute can enter into contracts with Missions and Bureaus for work which is not part of its 211(d) grant activity. Dr. Lyle Nelson is director of the Institute.

Basic Ordering Agreement for Project Planning, Academy for Educational Development

Task Orders can be executed under this Agreement for six main categories of service to the field in educational technology: preliminary and feasibility studies; major planning studies requiring several man months of effort; special short-term studies not exceeding 1½ man months; conferences and workshops; utilization; talent recruitment.

TA/EHR is executing Task Order No. 2 providing for two to three large-scale planning studies plus certain special studies. Sites have not yet been selected for these planning studies. TA/EHR will send a copy of this B.O.A. on request from Missions and Regional Bureaus.

Missions interested in the possibility of executing a Task Order or in possible participation in the work under TA/EHR's Task Order No. 2 should communicate with TA/EHR through their Bureau backstop offices.

HOW CAN THESE RESOURCES BE TAPPED?

Missions having questions about project planning, development and evaluation should communicate with TA/EHR through their Regional Bureau. When appropriate, TA/EHR can provide short-term services of staff and consultants.

Where can Missions write, or visit, for more information of the kind needed in the "thinking-about" stage?

GTS Project: "Information Center on Educational Technology." Contractor: Academy for Educational Development.

Located in the Academy for Educational Development in Washington, D.C., the Center distributes films, handbooks, a NEWSLETTER, and information bulletins developed especially for AID and LDC audiences. The Center maintains a library and has a resident staff available for consultation, including an information specialist and an evaluation planning expert. The Center can also organize seminars and workshops on educational technology, for which funding would be provided by the requesting organization. The Center is not intended as a final information resource on all technology related questions but operates in part as a referral channel to numerous other resource organizations which may have more varied or more specific technical capabilities and holdings.

Mission and Bureau personnel are always welcome at the Information Center. Plans are now afoot to include a visit to the Center in the Washington orientation or de-briefing schedule of AID participants in the fields of education, planning, and administration, plus participants who may not be in such fields but whose governments are planning innovative technologies to promote learning in other sector programs.

How to tap this resource. Written inquiries may be addressed to: Information Center on Educational Technology, c/o Academy for Educational Development, 1424 16th Street, N.W., Washington, D.C. 20036. Anyone who is in Washington is welcome to visit the Center. It is probably best to telephone to arrange a time for your visit, especially if you want information of a specific nature. The telephone number is (202) 265-5576.

WHAT ARE FUTURE PROSPECTS FOR THIS PEF?

In all likelihood we will see a much more extensive collaboration with the other PEFs in the education sector, and much more frequent interdisciplinary efforts with health, nutrition, population and agriculture programs.

What objectives will we concentrate upon?

- Improving the effectiveness of systems utilizing TV and radio, which are aimed at reform, cost-reduction or extension of primary education. More work on the use of radio, integrated with other educational inputs, is a high priority.

- Using the educational technologies in more effective support of programs in delivery of local community services in agriculture, health, and nutrition.

- Better use of systems of educational technology in providing out-of-school or non-formal, educational opportunities, particularly to rural families.

Will certain media be stressed?

No. Use of any of the media depends on patterns of needs, resources, and possibilities that emerge, as each Mission and host government pursue the analysis of the country education situation. Of greater importance, often, are ways of organizing the learning situation, of determining relevant content, and of effective instructional methods.

What research and development is underway?

An R&D contract to study the use of radio for primary school mathematics teaching is the first in what we expect to be a growing array of research programs aimed at increasing the usefulness and impact of the educational technologies for the LDCs.

Research: "Application of Radio to Teaching Elementary Mathematics." Contractor: Institute for the Mathematical Study of the Social Sciences, Leland Stanford University.

Begun in June, 1973, this R&D activity will design, implement and evaluate a system of elementary mathematics teaching via radio. It will also advance our understanding of the use of learner feedback in broadcast mediated instruction. The project is headed by Dr. Patrick Suppes and has a core staff of approximately 20 professionals with expertise in development of programmed instructional materials in mathematics. The contractor and AID/W are in the process of selecting the country site.

Research: "Utilizing Non-Professionals in the Instructional Process." Contractor: American Institutes for Research.

Under a small research funding arrangement, the contractor is completing a modest preliminary survey of teaching models using non-professionals, e.g., peers, parents, drop-outs, in both the formal

school context and in non-formal programs. The final report will describe alternative models for utilizing non-professionals in the instructional process. A larger R&D project is anticipated to test these models in an LDC context. The contractor's major strength is in educational research, testing, and materials development. Contractor's LDC experience has been for the most part in Africa and Southeast Asia.

Program Emphasis Field: HIGHER EDUCATION FOR NATIONAL DEVELOPMENT

WHAT IS THIS PROGRAM EMPHASIS ALL ABOUT?

We now want to try to bring LDC universities more actively into the mainstream of development work. For one thing, our largest education investment over the years has been in higher and professional education; for another, most higher education institutions we have assisted have now reached a state of maturity which permits turning toward the community and offering help in finding solutions to economic and social development problems.

The transition from a concept of universities as remote from the hurly-burly of real-life events to a model including effective problem-oriented service will not be easy. There is a legitimate difference of belief about the proper role of any university. University autonomy and academic freedom lie at the heart of this issue and were established only after centuries of bloody struggle with political, economic and religious interests. We Americans often overlook the fact that the struggle against domination by other interests is by no means over in some parts of the world.

On the other hand, some university people act at times as though autonomy meant "above the crowd" rather than "apart from the crowd."

The question we derive from this issue of autonomy is: How, and to what extent, can a university become directly involved in the economic and social development efforts of its nation, and even of the world, without compromising its position or destroying its unique character as a social institution? The secondary question, which brings us back to what this program emphasis is all about, is: What can AID do to encourage more direct participation in development activities, and how can AID best assist the institutions which opt for this role?

WHAT HAS BEEN DONE IN THIS PROGRAM EMPHASIS FIELD TO DATE?

This PEF is a new one, and, though the goal is clear, the route to its achievement is not yet drawn. We have discussed the proposed emphasis within AID, with other donor agencies, with LDC and US development workers, with university people, and with some of the organizations connected with and serving the higher education community.

In 1972, and again in 1973, the heads of the major donor agencies met in Bellagio, Italy, to consider new ways of working together in

educational development assistance. At the 1973 meeting, they agreed that higher education was an area that deserved special attention. They directed that a project be formulated to identify institutions that are making attempts to relate their instructional and research programs to national development needs, to engage themselves more directly in the life of the community in which they are situated. AID is helping to design, fund, and sponsor this project.

WHAT ARE SOME OF THE OTHER ACTIVITIES WE PLAN?

First, we propose that more flexible arrangements be tried by AID and other U.S. agencies to maintain the relationships between U.S. and LDC institutions when such relations contribute to a more direct and active development participation by the LDC institutions in their own societies.

Second, we propose to develop capabilities to respond to LDC requests for help with short-term, or specialized assistance from U.S. sources, where such assistance helps meet national development goals.

Third, we propose to encourage collaborative programs between LDC and U.S. institutions by providing modest assistance where primary support is by the institutions themselves, where the benefits are to both institutions, and where the activity is development-related.

WHAT RESOURCES ARE AVAILABLE TO BUREAUS AND MISSIONS?

While resources exist, they are not yet organized for this purpose. How they are organized will depend in part on the nature of the demand expressed by Missions and Regional Bureaus, and in part on the kinds of linkages and networks in which LDC universities participate.

We can, however, provide certain services now. On request, we can identify U.S. universities which have already demonstrated interest and have programs related to the various regions or countries.

We can identify individuals or small teams who could, on a short-term basis, help interested LDC university officials to explore (1) ways of becoming more directly involved in national development concerns, and also (2) the kinds of collaboration they wish to continue or initiate with U.S. and other LDC institutions. These discussions might take place in the developing country, in the U.S., or both.

Clearly, the service described above must be a tailor-made response to a specific need.

WHAT ARE THE FUTURE PROSPECTS FOR THIS PEF?

It is more than likely that LDC universities will initially see research programs as a useful contribution to various development activities. In-country and regional networks will probably be strengthened.

More enduring relationships will develop between U.S. and LDC institutions having mutual interests or making complementary inputs to one another's programs.

It is probable that, in addition to the traditional forms of AID support, the Agency will collaborate in efforts which are jointly sponsored and funded by two or more donor groups.

Some LDC institutions can be expected to initiate work on necessary adaptations of modern technologies, in order to increase the utility of these technologies under LDC conditions.

AID Missions and regional offices, working in collaboration with host country officials and universities, will in many cases be the catalysts in surfacing new institutional initiatives, preparing early requests for collaboration in specific actionable terms, and feeding back essential data on problems and success.

QUALITY OF LIFE GOALS

Some Thoughts on Coordination with Other Sectors

In the foregoing statement we have tried to describe those key areas - or program emphasis fields - in which we believe our educational assistance effort will be increasingly concentrated. These areas seem to us to provide the most promise for achievement of educational goals as they relate to improving the quality of life of the broadest possible segments of populations in less developed countries.

Such concentration and focus, however, cannot fully achieve human resources development goals. When people try to improve their life conditions through programs to increase employment, to improve access to education and other social services, and to improve their physical, mental, and social well-being, they become involved in all the human resources development sectors, often in a rather complex, and possibly conflict-laden, way. We believe that none of these broader human resources development goals can be achieved within any one sector; each human resources development goal requires the coordinated contribution of several sectors.

A high degree of flexibility and collaboration is, therefore, required among sector efforts to plan and carry out programs in various quality-of-life areas. In the final analysis the success of AID's human resources development efforts will depend on effective collaborative response to the needs of LDC populations.

But in addition to the target group's own perception of the nature of its problem and of the utility of any proposed solution, we have within the Agency a broad range of various perceptions of LDC human resources problems, as seen by the different professional groups in the various sectors of AID's work. For example, an economist, a co-op specialist, and an educator will probably see quite different problems associated with "underemployment" and will, therefore, propose different problem-solving actions. The "under-employed" person himself may not even perceive his problem as "under-employment."

In modern communications technology, based on social science research, the differing perceptions formed of the same situation by people of diverse backgrounds and various professional concerns are an important element of the communication process leading to problem identification and goal setting. It is, of course, unavoidable that heterogeneity of values, varying frames of reference, and different life experiences will cause perceptual differences. The broadening or harmonizing of our diverse perceptions of the "same" problem precedes the mutual understanding which underlies intersectoral, as well as international, collaboration.

For the Education Sector, this means that, in addition to analysis and planning for the sector as traditionally defined, it is necessary for us

to perceive the education components in the various activities which may be classified as "belonging" to other sectors. In addition, we seek active dialogue with members of other sectoral groups to understand their perceptions of education sector problems on which they have ideas or questions.

As a consequence the Education Sector can be in a position to collaborate with other sectors in "their" programs on the one hand; and on the other to request assistance and collaboration from outside the education sector whether for analysis, problem specification, planning, implementation, research or evaluation. The important point is that sectors are conveniences for organizational and logical reasons; they do not exist in pure form in the life of a people and should not stand in the way of the most effective programs.

As a first step toward a more collaborative style with other sectors for work toward quality of life goals, TA/EHR asked a number of experts from various disciplines to prepare papers dealing with some elements of human resources development from their points of view. The following papers are available:

GOALS/PRIORITY ANALYSIS:

1. John Badgley, "A Concept of Human Resources Suggesting Actionable AID Programs", February 1973.

2. _____, "Case Studies in AID Contributions to Human Resource Development", revised, October, 1973.

3. Theodore W. Schultz, "People in Poor Countries Investing in Themselves: An Economist's View", Outline for AID Seminar, February, 1973.

4. _____, "The Education of Farm People: An Economic Perspective", May, 1972.

5. _____,"A "Guide" to Investors in Education with Special Reference to Developing Countries", January, 1972.

6. _____, "The Alternatives Before Us in Agricultural Development: An Economist's View", January, 1973.

WOMEN IN DEVELOPMENT

1. Joyce Kallgren, "Enhancing the Role of Women in Developing Countries", November, 1973. (a case study of women in China today)

2. "Women and Development", AID: TA/EHR, 1971.

QUALITY OF LIFE-FAMILY:

1. Cecile Edwards and Patsy Graves, "Quality of Life - Family", The Howard University Reconnaissance Study: Non-Formal Education for Improving the Quality of Family Living, September, 1973.

EDUCATION AND EMPLOYMENT:

1. John F. Hilliard, "Human Resources and Employment in Economic Growth", Manpower: Employment Strategies for Economic Development, 1969.

POPULATION EDUCATION:

1. "Report on a Seminar on Creating an International Population Education Network", June, 1973.

2. "Network Report: U.S. Research and Training Institutions in Population Education", January, 1974.

TA/EHR welcomes comments and also suggestions for further exploration, analysis, and strategy development.